

## **Practice Question Implementing spring security**

### **Entity**

```
package com.sec.entity;
```

```
import java.util.Collection;
```

```
import
```

```
org.springframework.boot.autoconfigure.security.SecurityProperties.
```

```
User;
```

```
import org.springframework.security.core.GrantedAuthority;
```

```
import org.springframework.security.core.userdetails.UserDetails;
```

```
public class MyUserDetails implements UserDetails{
```

```
    private static final long serialVersionUID = 1L;
```

```
    private String userName;
```

```
    private String password;
```

```
    public MyUserDetails() {
```

```
    }
```

```
    public MyUserDetails(User user) {
```

```
        this.userName = user.getName();
```

```
        this.password = user.getPassword();
```

```
}
```

```
@Override  
public Collection<? extends GrantedAuthority>  
getAuthorities() {  
    return null;  
}
```

```
@Override  
public String getPassword() {  
    return password;  
}
```

```
@Override  
public String getUsername() {  
    return userName;  
}
```

```
@Override  
public boolean isAccountNonExpired() {  
    return true;  
}
```

```
@Override  
public boolean isAccountNonLocked() {  
    return true;  
}
```

```
    @Override
    public boolean isCredentialsNonExpired() {
        return true;
    }

    @Override
    public boolean isEnabled() {
        return true;
    }
}
```

```
package com.sec.entity;
```

```
import jakarta.persistence.Entity;
import jakarta.persistence.Id;
import jakarta.persistence.Table;
```

```
@Entity
@Table(name="user")
public class User {
```

```
    @Id
    private Integer id;

    private String name;
```

```
private String password;
```

```
public User() {  
    super();  
}
```

```
public User(String name, String password) {  
    super();  
    this.name = name;  
    this.password = password;  
}
```

```
public String getName() {  
    return name;  
}
```

```
public void setName(String name) {  
    this.name = name;  
}
```

```
public String getPassword() {  
    return password;  
}
```

```
public void setPassword(String password) {  
    this.password = password;  
}
```

```
    }  
}
```

## **Repositories**

```
package com.sec.repo;
```

```
import java.util.Optional;
```

```
import org.springframework.data.repository.CrudRepository;
```

```
import org.springframework.stereotype.Repository;
```

```
import com.sec.entity.User;
```

```
@Repository
```

```
public interface UserRepo extends CrudRepository<User, Integer>{
```

```
    public Optional<User> findUserByName(String name);  
}
```

## **Services**

```
package com.sec.service;
```

```
import java.util.Optional;
```

```
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.security.core.userdetails.UserDetails;
import
org.springframework.security.core.userdetails.UserDetailsService;
import
org.springframework.security.core.userdetails.UsernameNotFoundException;
import org.springframework.stereotype.Service;

import com.sec.entity.MyUserDetails;
import com.sec.entity.User;
import com.sec.repo.UserRepo;
```

```
@Service
public class MyUserServices implements UserDetailsService {

    @Autowired
    UserRepo userRepo;

    public User GetUserByName(String name) {
        Optional<User> user =
userRepo.findUserByName(name);
        if(!user.isPresent()) throw new RuntimeException();
        return user.get();
    }
}
```

```

    @Override
    public UserDetails loadUserByUsername(String username)
        throws UsernameNotFoundException {
        return new MyUserDetails();
    }
}

```

### **Config files**

```

package com.sec.service;

import java.util.Optional;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.security.core.userdetails.UserDetails;
import
org.springframework.security.core.userdetails.UserDetailsService;
import
org.springframework.security.core.userdetails.UsernameNotFoundE
xception;
import org.springframework.stereotype.Service;

import com.sec.entity.MyUserDetails;
import com.sec.entity.User;
import com.sec.repo.UserRepo;

```

```

@Service
public class MyUserServices implements UserDetailsService {

    @Autowired
    UserRepo userRepo;

    public User GetUserByName(String name) {
        Optional<User> user =
userRepo.findUserByName(name);
        if(!user.isPresent()) throw new RuntimeException();
        return user.get();
    }

    @Override
    public UserDetails loadUserByUsername(String username)
        throws UsernameNotFoundException {
        return new MyUserDetails();
    }

}

```

## **Webconfig**



































```

package com.sec;
import org.springframework.context.annotation.Configuration;
import
org.springframework.web.servlet.config.annotation.ViewControllerRegistry;
import org.springframework.web.servlet.config.annotation.WebMvcConfigurer;
@Configuration

```



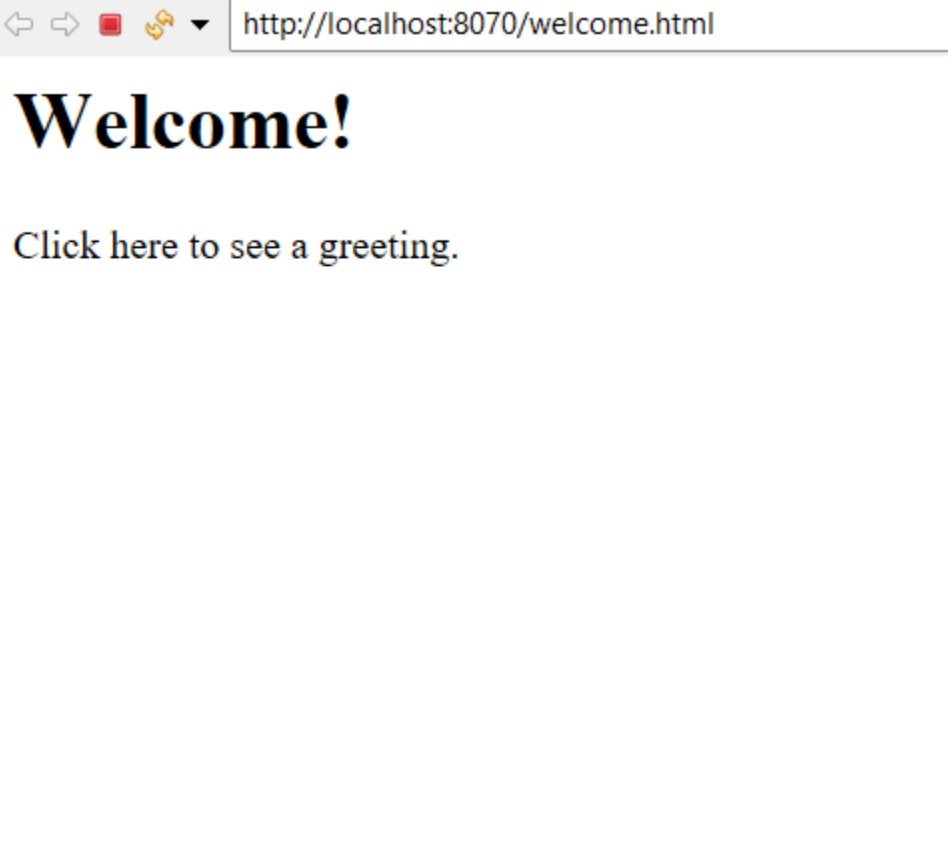
```
public class MvcConfig implements WebMvcConfigurer{  
    public void addViewControllers(ViewControllerRegistry registry) {  
        registry.addViewController("/index").setViewName("index");  
        registry.addViewController("/").setViewName("index");  
        registry.addViewController("/login").setViewName("login");  
        registry.addViewController("/welcome").setViewName("welcome");  
    }  
}
```

- ▼  SpringSecurity [boot] [devtools]
  - ▼  src/main/java
    - ▼  com.sec
      - >  MvcConfig.java
      - >  SpringSecurityApplication.java
      - >  WebSecurityConfig.java
    - ▼  com.sec.entity
      - >  MyUserDetails.java
      - >  User.java
    - ▼  com.sec.repo
      - >  UserRepo.java
    - ▼  com.sec.service
      - >  MyUserServices.java
  - ▼  src/main/resources
    -  application.properties
  - >  src/test/java
  - >  JRE System Library [JavaSE-17]
  - >  Maven Dependencies
  - ▼  src
    - ▼  main
      - >  java
      - >  resources
      - ▼  webapp
        - ▼  WEB-INF
          - ▼  views
            -  index.jsp
            -  login.jsp
            -  welcome.jsp
    - >  test
  - >  target
  -  HELP.md
  -  mvnw
  -  mvnw.cmd
  -  pom.xml

```

[INFO] [v3.1.0]
[Spring Boot :]
2023-06-13T18:25:52.23105+03:00 INFO 21212 --- [ restartedMain] com.sec.SpringSecurityApplication : Starting SpringSecurityApplication using Java 17.0.7 with PID 21212 (C:\Users\
2023-06-13T18:25:52.242+03:00 INFO 21212 --- [ restartedMain] com.sec.SpringSecurityApplication : No active profile set, falling back to default profile: 'default'
2023-06-13T18:25:52.245+03:00 INFO 21212 --- [ restartedMain] org.springframework.context.annotation.AnnotationConfigW : The class 'Application' is not annotated with '@SpringBootApplication'
2023-06-13T18:25:52.252+03:00 INFO 21212 --- [ restartedMain] org.springframework.devtools.DevTools : DevTools property defaults active! Set 'spring.devtools.add-properties' to:
2023-06-13T18:25:52.256+03:00 INFO 21212 --- [ restartedMain] org.springframework.devtools.DevTools : For additional web related logging consider setting the 'logging.level.web'
2023-06-13T18:25:52.831+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.d.r.c.RepositoryConfigurationDelegat : Multiple Spring Data modules found, entering strict repository configuration
2023-06-13T18:25:52.831+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.d.r.c.RepositoryConfigurationDelegat : Bootstrapping Spring Data JPA repositories in DEFAULT mode.
2023-06-13T18:25:52.876+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.d.r.c.RepositoryConfigurationDelegat : Finished Spring Data repository scanning in 38 ms. Found 1 JPA repository in
2023-06-13T18:25:53.333+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.d.r.c.RepositoryConfigurationDelegat : Multiple Spring Data modules found, entering strict repository configuration
2023-06-13T18:25:53.333+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.d.r.c.RepositoryConfigurationDelegat : Bootstrapping Spring Data JDBC repositories in DEFAULT mode.
2023-06-13T18:25:53.066+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.d.r.c.RepositoryConfigurationExtensio : Spring Data JDBC - Could not safely identify store assignment for repository
2023-06-13T18:25:53.078+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.d.r.c.RepositoryConfigurationDelegat : Finished Spring Data repository scanning in 11 ms. Found 0 JDBC repository i
2023-06-13T18:25:53.374+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.d.r.c.RepositoryConfigurationExtensio : Bean 'org.springframework.ws.config.annotation.DelegatingWsConfiguration' of
2023-06-13T18:25:53.618+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Supporting WS-Addressing August 2004, WS-Addressing 1.0]
2023-06-13T18:25:53.905+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Tomcat initialized with port(s): 8070 (http)
2023-06-13T18:25:53.914+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Starting service 'Tomcat'
2023-06-13T18:25:53.914+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Starting Servlet engine: [Apache Tomcat/10.1.8]
2023-06-13T18:25:53.993+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Initializing Spring embedded WebApplicationContext
2023-06-13T18:25:53.993+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Root WebApplicationContext: initialization completed in 1697 ms
2023-06-13T18:25:54.533+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HH000204: Processing PersistenceUnitInfo [name: default]
2023-06-13T18:25:54.585+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HH000412: Hibernate ORM core version 6.2.2.Final
2023-06-13T18:25:54.587+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HH000406: Using bytecode reflection optimizer
2023-06-13T18:25:54.721+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HH000021: Bytecode provider name: bytubuddy
2023-06-13T18:25:54.850+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : No LoadTimeWeaver setup: ignoring JPA class transformer
2023-06-13T18:25:54.866+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HikariPool-1 - Starting...
2023-06-13T18:25:55.224+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HikariPool-1 - Added connection com.mysql.cj.jdbc.ConnectionImpl@463a43
2023-06-13T18:25:55.226+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HikariPool-1 - Start completed.
2023-06-13T18:25:55.296+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HH035001: Bytecode provider: org.hibernate.dialect.MySQLDialect, version: 8.0.3
2023-06-13T18:25:55.355+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : HH000490: Using PlatformIdentifier for 'hibernate.engine.transaction
2023-06-13T18:25:55.381+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Initialized JPA EntityManagerFactory for persistence unit 'default'
2023-06-13T18:25:56.213+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : spring.jpa.open-in-view is enabled by default. Therefore, database queries m
2023-06-13T18:25:56.704+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Will secure any request with 'org.springframework.security.web.session.Disab
2023-06-13T18:25:56.846+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : ControllerAdvice beans: 0 @ModelAttribute, 0 @InitBinder, 1 RequestBodyAdvice
2023-06-13T18:25:56.851+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Added welcome page template: index
2023-06-13T18:25:56.929+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : 2 mappings in 'requestMappingHandlerMapping'
2023-06-13T18:25:56.931+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Patterns [/ , /index, /login, /welcome] in 'viewControllerHandlerMapping'
2023-06-13T18:25:56.951+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : Patterns [/webjars/**, /**] in 'resourceHandlerMapping'
2023-06-13T18:25:56.958+03:00 INFO 21212 --- [ restartedMain] org.springframework.s.w.s.a.AnnotationActionEndpointMapping : ControllerAdvice beans: 0 @ExceptionHandler, 1 ResponseBodyAdvice

```



http://localhost:8070/login

Please sign in

Sign in

MarkersPropertiesServersData Source ExplorerSnippetsConsole xTerminalTCP/IP MonitorJUnitCoverage

ipringSecurity - SpringSecurityApplication [Spring Boot App] C:\Users\Swaroop\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.7.v20230425-1502\jre\bin\javaw.exe (13-Jun-2023, 5:40:01 pm) [pid 25044] --- [nio-8070-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'  
2023-06-13T17:40:54.861+05:30 INFO 25044 --- [nio-8070-exec-1] o.s.web.servlet.DispatcherServlet : Detected StandardServletMultipartResolver  
2023-06-13T17:40:54.862+05:30 DEBUG 25044 --- [nio-8070-exec-1] o.s.web.servlet.DispatcherServlet : Detected AcceptHeaderLocaleResolver  
2023-06-13T17:40:54.862+05:30 DEBUG 25044 --- [nio-8070-exec-1] o.s.web.servlet.DispatcherServlet : Detected FixedThemeResolver  
2023-06-13T17:40:54.863+05:30 DEBUG 25044 --- [nio-8070-exec-1] o.s.web.servlet.DispatcherServlet : Detected org.springframework.web.servlet.  
2023-06-13T17:40:54.863+05:30 DEBUG 25044 --- [nio-8070-exec-1] o.s.web.servlet.DispatcherServlet : Detected org.springframework.web.servlet.  
2023-06-13T17:40:54.863+05:30 DEBUG 25044 --- [nio-8070-exec-1] o.s.web.servlet.DispatcherServlet : enableLoggingRequestDetails='false': requ  
2023-06-13T17:40:54.863+05:30 INFO 25044 --- [nio-8070-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 1 ms

http://localhost:8070/login

Please sign in

Sign in

⏮ ⏭ 🛑 🔄 ▼ http://localhost:8070/welcome.html

Welcome Ash

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